U. S. Naval Weapons Laboratory Dahlgren, Virginia

NWL MAL-1

Microfiche Usage in the
Technical Library at Naval Weapons Laboratory

By CATHRYN C. LYON Head, Technical Library Division

1	r fede Techni	ARINGHOUSE ERAL SCIENTIFIC AND ICAL INFORMATION
1		Microfiche
*	3.00	1.65 10 pp as
1	ARC	HIVE COPY

DDC DANA 1967 TISULULULU

1 - Aug.	,	T	The second secon	and the second section of the second section is the second second section of the
	NUMBER (To be serted by DDC) ~	* .	: *	
ASSIFIED	HIGHNATING AGENCY			REPORT SERIES AND NUMBER
UNCLASS.FIED WHEN ENCLOSURE IS REMOVED	Naval heapor	Laboratory		MAL-1
8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	MICROFICHE (USAGE IN THE TE THE NAVAL WEAPO		December Coc. BUMEPS CODE (For in BUMEPS only)
			CONTRACT/FROJECT/WEF	TASK NUMBER
Administrator Defense Documentation Center for and Technical Information (DI Bldg #5, Cameron Station Alexandria, Virginia 22314			SECURITY CLASSIFICATE R TITLE OR SU ABSTRACT OR SU	EPORT X BJECT X
nclosure is forwarded for distribution subject to opies of this letter be returned to originating a nd one copy be retained by DDC.	limitations chec	ked below. Request AD below; two copies be s	number be inserte ent to Chief, Bure	d in space above; teau of Naval Weapo.
1. Distribution of this document is unlimited.			al of this documer	nt outside the agencerior approval of
2. For official use only. (DOD Directive 5200 N ADDITION TO SECURITY REQUIREMENTS WHICH O THIS DOCUMENT AND MUST BE MET — 3. This document is subject to special export and each transmittal to foreign governments or mationals may be made only with the prior appro-	APPLY controls foreign	ment of Defense h	ust have prior app	stributed by the hol
Technical Library U. S. Naval Wespons Lab Dahlgren, Virginia 224				
		1		•
CATHRYN C. LYON	. le	L11	brari an	r
Chief, Bureau of Naval Weapons	l -7		CUDE CLASSIFICATION	DATE
Washington, D. C. 20360	ب		UNCLAS	SSIFIED
	•		UNCLASSIFIED WHEN	ENCLOSITRE IS REMOVE

· ·.

U. S. Naval Weapons Laboratory Dahlgren, Virginia

NWL MAL-1

Microfiche Usage in the

Technical Library at Naval Weapons Laboratory

By CATHRYN C. LYON Head, Technical Library Division

1 December 1.966

This report is not to be construed as expressing the opinion of the U Navel Weapons Laboratory, Dahlgren.

In 1964, the Technical Library made plans for moving into newer, more spacious quarters. While making these plans, it was obvious to the Librarian that in two years the accumulation of documents, books, and periodicals would again be a storage problem.

The Librarian and the Library Advisory Committee asked the Management Engineering Staff to assist them in a study of the use of microfiche for the library. I'm assuming the reader is familiar with the size and format of microfiche sheets and will not elaborate on them. The study that we requested was conducted and included visits to the only users of microfiche in the Washington area at the time. They were NASA, AEC at Germantown, and a future user, DDC. The Library Advisory Committee in preliminary discussions had stressed the need for making the use of microfiche completely convenient and comfortable for the user. The study was intended to help us learn how microfiche was produced, reproduced, and used. An interesting thing became glaringly obvious -- none of these agencies were equipped with enough readers to make the use of microfiche convenient. In fact, at the time one agency had only a large reader-printer in the library which appeared to be used solely for reproducing hard copies -- not for reading purposes. We were convinced that the Advisory Committee was correct and recommended in our report to Laboratory Management that we would need ten (10) portable readers for the laboratory as a start. We have since purchased the following and recommend this equipment as satisfactory: (or equivalent equipment)

1.	10 Dukane Portable Readers	@152. 20	\$152 2.00
2.	14 Doc. Inc. Portable Readers	@159.5 0	2228.00
3.	1 Filmac 400 Microfilm and		
	Microfiche Reader-Printer in		
	Main Library.		1073.10
	Microfiche Attachmen	t	215.00
4.	Microfiche Copying Equipment (K	alvar)	
	Printer		59 6.00
	Developer		300.00
5. 6.	Filing Cabinet for 4x6 Microfic	he (GSA)	91.50
6.	Filing Envelopes (for holding M	icro-	
	fiche in cabinet)	@6. 00 per M	60.0 0
	(Microcard Editions, Inc.)	_	
	TOTAL		\$6323.50

Because of the resistance of research people to using microfilm, we felt that we should conduct several sessions in which we explained the need for using microfiche, and the advantages. As we placed each of the first portable readers, we itemized the following and answered questions:

NEEDS

- 1. To increase storage capacity in the library without adding space.
- 2. To eliminate myriad filing cabinets of hard copies in

storage in various individuals offices.

3. NWL is geographically remote from information centers and it is necessary to maintain an extensive working collection for prompt availability. This can only be done if storage capacity is sufficient.

USES AND ADVANTAGES

- 1. Duplicates are made of master microfiche and are circulated without being charged to the individual. They are expendable. This is true for the unclassified. The Confidential and Secret have to be accounted for.
- 2. When several requests come to the library for the same document, copies can be sent immediately of microfiche to all requestors, thereby allowing him to receive the document immediately and not have to wait his turn to see a hard copy.
- 3. One thousand (1000) microfiche will fit in a filing drawer on a man's desk as compared with a $2\frac{1}{2}$ by $1\frac{1}{2}$ filing cabinet.
- 4. Can reduce bound journal back files when these are finally available on microfiche thereby allowing storage for a greater collection of journal literature.
- 5. Ratio of shelving in library to microfiche drawer space is 140:1.

The education process to promote usage of microfiche is a continuing one. Acceptance has been very good by the NWI: staff. However, when there are problems, it is because the microfiche copy is poor. Agencies who produce these need to staff their operations for accuracy in copying that will reproduce good tables, graphs, and diagrams, as well as text. If some mathematical notations are obscured, it can change the whole problem. These poor microfiche create our only user problem.

Originally, we had planned to purchase portable readerprinters when they were available. However, it seems to satisfy
the users needs to have a handy reader and the knowledge that a
reader printer is available when needed. It seems that discretion is the better part in this case and encouraging copying will
create again the hard copy storage problem in individual offices.

Certain costs savings can be documented while an estimation of the value to the borrower of prompt access to reports can only be assumed. We have thirteen thousand (13,000) microfiche documents in one filing cabinet. All of the document distribution from NASA comes on microfiche and all of DDC and AEC reports are requested to be on microfiche. Roughly about *50 filing cabinets in offices can be discarded making the following savings:

NWL Report--MAL - 1

I.	13,000 documents would require 18 sections of shelving Floor cost if 18 new sections	\$ 30 34.00
	of shelving had to be placed @25 per ft.	3375.00
	Floor space saved by eliminating *50 filing cabinets $2\frac{1}{2}$ 'x $1\frac{1}{2}$ ' @25 sq. ft.	4487.50
	TOTAL SAVINGS TO DATE WITH MICROFICHE	\$10856.00
II.	Cost of filing cabinet Cost of floor space for cabinet @25.00 Other equipment (minus cabinet)	91.50 89.75 6232.00
	TOTAL COST OF MICROFICHE	\$ 6413.25
	Savings Costs for equipment, etc	\$10856.50 6413.25
	TOTAL	\$ 4443.25

These figures indicate that we are about four thousand dollars (\$4000.00) ahead by having installed the use of microfiche. They are the obvious. The value of having enough information available and room for it when it is needed for a research problem is hard to estimate. But in emergencies like the present conflict a delay in obtaining reports or manuals can mean the delay of effective support to the war effort. Who can evaluate the cost?

ORIGINATING ACTIVITY (Corporate author)	ENT CONTROL DATA - R & D and indexing annotation must be enter		e overall report is class
			SECURITY CLASSIFICA
N	L		UNCLASSIFIED
Naval Weapons Laboratory	26,	GROUP	
REPORT TITLE			
Attanonia valan ayan ayan ayan			
MICROFICHE USAGE IN THE TECHNICAL	LIBRARY AT THE NAVAL	WEAPONS	LABORATORY
DESCRIPTIVE NOTES (Type of report and inclusive date	72)		
AUTHOR(S) (First name, middle initial, last name)			
Lyon, Cathryn C.			
			·
1 December 1966	78. TOTAL NO. OF P	AGES	76, NO. OF REFS
L DECEMBET 1900	D SM. ORIGINATOR'S RI	PORT NU	MBER(S)
PROJECT NO.	MAL-1		
•	ah	10/81 /Am	other numbers that may
÷.	this report)	NO(SI (ANY	other numbers mat may
1 .			
D. DISTRIBUTION STATEMENT			
			
D. ABSTRACT			
This is a report of two year:			iche and microf
			iche and microf
This is a report of two year:			iche and microf
This is a report of two year:			iche and microf
This is a report of two year:			iche and microf
This is a report of two year:			iche and microf
This is a report of two year:			iche and microf
This is a report of two year:			iche and microf
This is a report of two year:			iche and microf
This is a report of two year:			iche and microf
This is a report of two year:			iche and microf
This is a report of two year:			iche and microf
This is a report of two year:			iche and microf
			iche and microf
This is a report of two year:			iche and microf
This is a report of two year:			iche and microf
This is a report of two year:			iche and microf

S/N 0101-807-6811

•

Security Classification